

April 23, 2001

Kenneth L. Robinson
U.S. Aggregates Inc.
5400 West 86th Street
Indianapolis, IN 46268

Re: Significant Source Modification No:
089-13821-05210

Dear Kenneth L. Robinson:

U.S. Aggregates Inc. applied for a Part 70 operating permit on May 18, 2000 for portable crushing, screening and conveying plant to be located at US Steel Gary Works. An application to modify the source was received on January 25, 2001. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) One (1) secondary crusher, known as CR-2, capacity: 230 tons of steel mill slag per hour.
- (b) One (1) conveyor, known as CO-7, capacity: 230 tons of steel mill slag per hour

The Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Gurinder Saini or extension 3-0203, or dial (317) 233-0203.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

gs

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Gary Division of Air Pollution Control
Northwest Regional Office
Air Compliance Section Inspector - Rick Massoels
Compliance Data Section - Mendy Jones
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner
U.S. Steel Gary Works

**PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR QUALITY
and Gary Division of Air Pollution Control**

**U.S. Aggregates Inc.
(portable)**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 089-13821-05210	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality Original Signed by Paul Dubenetzky	Issuance Date:

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) the Gary Division of Air Pollution Control. The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a portable crushing, screening and conveying plant.

Responsible Official:	Kenneth Robinson
Initial Portable Source Address:	1 North Broadway, Gary, Indiana 46402
Mailing Address:	5400 West 86 th Street, Indianapolis, Indiana 46268
Phone Number:	317 - 875 - 4670
SIC Code:	3295
County Location:	Lake
County Status:	Nonattainment for PM ₁₀ , Ozone and SO ₂ Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under Emission Offset Rules; Major Source, Section 112 of the Clean Air Act 1 of the 28 Major PSD Source Categories

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This steel mill consists of a source with an on-site contractor:

- (a) U.S. Steel Gary Works, the primary operation, is located at 1 North Broadway, Gary, Indiana 46402 and
- (b) U.S. Aggregates Inc., the supporting operation, is located at 1 North Broadway, Gary, Indiana 46402.

IDEM has determined that even though U.S. Steel Gary Works and U.S. Aggregates Inc. are not under the common control of U.S. Steel Gary Works, these two plants are considered one source due to contractual control of the supply of slag and support. U.S. Steel Gary Works and U.S. Aggregates Inc. are considered one source.

Separate Part 70 permits will be issued to both plants.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This portable plant is approved to construct and operate the following emission units and pollution control devices:

- (a) One (1) secondary crusher, known as CR-2, capacity: 230 tons of steel mill slag per hour.
- (b) One (1) conveyor, known as CO-7, capacity: 230 tons of steel mill slag per hour

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This portable source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.
- (c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Division of Air Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, Gary Division of Air Pollution Control upon request and shall be subject to review and approval by IDEM, OAQ, Gary Division of Air Pollution Control. IDEM, OAQ, Gary Division of Air Pollution Control may require the

Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Division of Air Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.7 Fugitive Dust Emissions [326 IAC 6-1-11.1]

The Permittee shall be in violation of 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), if the opacity of fugitive particulate emissions including from paved and unpaved roads, material transfer, wind erosion from storage piles and material transportation activities, exceeds ten percent (10%). Compliance with this opacity limit shall be achieved by controlling fugitive particulate matter emissions according to the plan submitted on January 28, 2000. This plan consists of applying water on an as-needed basis to unpaved roads and storage piles.

C.8 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), except when located in Lake County, fugitive particulate matter emissions shall be controlled according to the plan submitted on January 28, 2000. This plan consists of applying water on an as-needed basis to unpaved roads and storage piles.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

- (a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Division of Air Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ, Gary Division of Air Pollution Control within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, Gary Division of Air Pollution Control if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this approval. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Division of Air Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.12 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM, Gary Division of Air Pollution Control may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.13 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, Gary Division of Air Pollution Control representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner Gary Division of Air Pollution Control makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner Gary Division of Air Pollution Control within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;

- (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this approval;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.14 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Gary Division of Air Pollution Control
Suite 1012
504 Broadway
Gary, Indiana 46402
- (b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, Gary Division of Air Pollution Control on or before the date it is due.
- (c) Unless otherwise specified in this approval, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

Portable Source Requirement

C.15 Relocation of Portable Sources [326 IAC 2-14-4]

- (a) This permit is approved for operation in all areas of Indiana. This determination is based on the requirements of Prevention of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given to IDEM, OAQ, and a "Relocation Site Approval" letter must be obtained before relocating.
- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to, or from, one the following:
 - (1) Madison County - (Anderson Office of Air Management)
 - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
 - (3) City of Gary - (Gary Division of Air Pollution)
 - (4) City of Hammond - (Hammond Department of Environmental Management)
 - (5) Marion County - (Indianapolis Air Pollution Control Agency)
 - (6) St. Joseph County - (St. Joseph County Health Department)
 - (7) Vigo County - (Vigo County Air Pollution Department)
- (c) A valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) secondary crusher, known as CR-2, capacity: 230 tons of steel mill slag per hour.
- (b) One (1) conveyor, known as CO-7, capacity: 230 tons of steel mill slag per hour

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.1 Emission Offset [326 IAC 2-3]

In order to avoid the applicability of 326 IAC 2-3 (Emission Offset), the input of steel mill slag to the portable crushing, screening and conveying plant shall not exceed 559,744 tons per twelve (12) consecutive month period. This will ensure limiting particulate matter emissions from the entire plant to less than twenty five (25) tons per year and that of particulate matter less than 10 micron size diameter to less than fifteen (15) tons per year.

This condition supercedes the condition D.1.1 (a) in the Minor Source Modification Permit - 089-11824-05210, which required limiting the input of steel mill slag to the portable crushing, screening and conveying plant to 572,549 tons per twelve (12) consecutive month period.

Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.2 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the opacity limits pursuant to 326 IAC 5-1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.3 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records at the plant of the steel mill slag input.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

Quarterly summary to document compliance with operation condition numbers D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter or six (6) month period being reported. These reports shall include the monthly input of steel slag. All records and reports shall use calendar months.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
Gary Division of Air Pollution Control

PART 70 SOURCE MODIFICATION
CERTIFICATION

Source Name: U.S. Aggregates Inc.
Source Address: 1 North Broadway, Gary, Indiana 46402
Mailing Address: 5400 West 86th Street, Indianapolis, Indiana 46268
Source Modification No.: 089-13821-05210

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
Gary Division of Air Pollution Control**

Part 70 Source Modification Quarterly Report

Source Name: U.S. Aggregates Inc.
Source Address: 1 North Broadway, Gary, Indiana 46402
Mailing Address: 5400 West 86th Street, Indianapolis, Indiana 46268
Source Modification No.: 089-13821-05210
Facility: Crushing, screening, conveying and transporting steel mill slag
Parameter: Input of Steel Mill Slag
Limit: 559,744 tons per twelve (12) consecutive month period

YEAR: _____

Month	Tons of Slag	Tons of Slag	Tons of Slag
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on:

Submitted by:

Title/Position:

Signature:

Date:

Phone:

**Indiana Department of Environmental Management
Office of Air Quality
and Gary Division of Air Pollution Control**

**Technical Support Document (TSD) for a Part 70
Significant Source Modification**

Source Background and Description

Source Name:	U. S. Aggregates Inc.
Source Location:	1 North Broadway, Gary, Indiana 46402
County:	Lake
SIC Code:	3295
Operation Permit No.:	T 089-12280-05210
Operation Permit Issuance Date:	Yet to be issued
Significant Source Modification No.:	089-13821-05210
Permit Reviewer:	Gurinder Saini

The Office of Air Quality (OAQ) has reviewed a modification application from U. S. Aggregates Inc. relating to the construction of the following new emission units and pollution control devices:

- (a) One (1) secondary crusher, known as CR-2, capacity: 230 tons of steel mill slag per hour.
- (b) One (1) conveyor, known as CO-7, capacity: 230 tons of steel mill slag per hour

History

On January 7, 1998, U. S. Aggregates Inc. submitted an application to the OAQ requesting to add a secondary crusher and conveyor to their existing plant. U. S. Aggregates Inc. has submitted a Part 70 permit application on May 18, 2000.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Significant Source Modification to Part 70 Operating Permit 089-11824-05210, issued on June 12, 2000;
- (b) Part 70 Operating Permit T089-12280-05210, yet to be issued.

This permit supercedes the following condition in the permit mentioned in (a) above, because this permit sets a new limit for input of steel mill slag to the entire plant:

D.1.1 Emission Offset [326 IAC 2-3]

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- (a) In order to avoid the applicability of 326 IAC 2-3 (Emission Offset), the input of steel mill slag to the portable crushing, screening and conveying plant shall not exceed 572,549 tons per twelve (12) consecutive month period.

Source Definition

This steel mill consists of a source with an on-site contractor:

- (a) U.S. Steel Gary Works, the primary operation, is located at 1 North Broadway, Gary, Indiana 46402 and
- (b) U.S. Aggregates Inc., the supporting operation, is located at 1 North Broadway, Gary, Indiana 46402.

IDEM has determined that even though U.S. Steel Gary Works and U.S. Aggregates Inc. are not under the common control of U.S. Steel Gary Works, these two plants are considered one source due to contractual control of the supply of slag and support. U.S. Steel Gary Works and U.S. Aggregates Inc. are considered one source.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
There are no stacks associated with this operation					

Recommendation

The staff recommends to the Commissioner that the **construction and operation** be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on January 25, 2001.

Emission Calculations

See Appendix A page 1 and 2 of this document for detailed emissions calculations.

Potential To Emit of Modification before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.@

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	34.69
PM-10	16.52
SO ₂	-
VOC	-
CO	-
NO _x	-

Justification for Modification

- (a) The Part 70 Operating Permit is being modified through a Part 70 Significant Source Modification to a yet to be issued Part 70 Operating Permit because the potential to emit before controls of this modification exceeds twenty five (25) tons per year. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4). This modification is not processed as Minor Source Modification under 326 IAC 2-7-10.5 (d)(5)(C) or 326 IAC 2-7-10.5 (d) (9) because the efficiency of control for PM emissions is less than 99% and there are no existing secondary crushers at this source prior to this modification. Therefore this modification does not fall in the two categories for the Minor Source Modification.
- (b) Since the Part 70 Operating Permit for this source has not been issued yet, the approval of this Significant Source Modification will allow the source to construct and operate.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	Non-attainment
SO ₂	Non-attainment
NO ₂	Non-attainment
Ozone	Non-attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as nonattainment for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Lake County has been classified as nonattainment for PM-10. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions
- Since source (U.S. Steel) is one of the 28 listed source categories under 326 IAC 2-2, the fugitive PM emissions are counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	greater than 100
PM ₁₀	greater than 100
SO ₂	greater than 100
VOC	greater than 25
CO	greater than 100
NO _x	greater than 25

This existing source is a major stationary source because a severe nonattainment regulated pollutant is emitted at a rate of twenty-five (25) tons per year or more, a nonattainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more and it is one of the 28 listed source categories.

Portable Source

- (a) Initial Location
US Aggregate is a portable source and its initial location is 1 North Broadway, Gary, Indiana 46402.
- (b) PSD and Emission Offset Requirements
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions

Since this source (U.S. Steel) is one of the twenty-eight (28) listed sources under 326 IAC 2-2, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.
- (d) Local Agency

Based on the initial location of this source, the Gary Division of Air Pollution Control shall be contacted for additional air operating requirements. OAM has the authority to issue this significant source modification.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Limit Before Modification

Before this modification, the input of slag to the existing crushing and screening facilities was limited to less than 572,549 tons per year. This limit was equivalent to PM emissions after controls of less than twenty-five (25) tons per year including fugitive emissions. This input limit also assured that the PM₁₀ emissions are less than fifteen (15) tons per year. This throughput limit was calculated as follows from the ratio of the limiting case (PM):

Offset Sig. Level of <25 TPY / 153 TPY PTE after controls * 400 TPH * 8,760 hrs/yr = < 572,549 TPY

Limit After Modification

The above limit is revised as follows. The input of slag to the crushing and screening facilities including the Secondary Crusher and Conveyor shall not exceed 559,744 tons per year. This limit is equivalent to PM emissions after controls of less than twenty-five (25) tons per year including fugitive emissions. This input limit will also assure that the PM₁₀ emissions are less than fifteen (15) tons per year. Thus this modification is Minor under PSD rules, because the emissions from the new emission units are included in the existing Minor modification limits. This throughput limit was calculated as follows from the ratio of the limiting case (PM):

PTE for PM after control from the existing emission units = 153 tons per year
PTE for PM after control from the proposed emission units = 3.5 tons per year
Final PTE of PM from the plant after this modification = 156.5 tons per year

Offset Sig. Level of <25 TPY / 156.5 TPY PTE after controls * 400 TPH * 8,760 hrs/yr = < 559,744 TPY

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	3.47	1.65	-	-	-	-
Contemporaneous Increases	<25	<15	1.51	1.85	4.92	22.8
Contemporaneous Decreases	-	-	-	-	-	-
Net Emissions	0	0	-	-	-	-
PSD or Offset Significant Level	25	15	40	40	100	40

This modification to an existing major stationary source is not major because the emissions increases are less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 T089-12280-05210 application on May 18, 2000. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

- This crushing and screening of slag is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.670 through 60.676, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) since the slag material being crushed is not a nonmetallic mineral pursuant to 40 CFR 60.671.
- This crushing and screening operation of slag is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.380 through 60.686, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) since the operations are not producing metallic mineral concentrates from ore. None of these slag crushing and/or screening operations are performed in a mine or pit.
- There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326

IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Entire Source

326 IAC 2-3 (Emission Offset)

The input of steel mill slag to the portable crushing, screening and conveying plant shall not exceed 559,744 tons per twelve (12) consecutive month period. This will ensure limiting particulate matter emissions from the entire plant to less than 25 tons per year and that of particulate matter less than 10 micron size diameter to less than 15 tons per year. Therefore, this modification to an existing major stationary source is not major because the emissions increases are less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x and one hundred (100) tons per year of PM₁₀ in Lake County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity emissions shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations), fugitive particulate matter emissions except when located in Lake County shall be controlled according to the plan submitted on January 28, 2000. This plan consists of applying water on an as-needed basis to unpaved roads and storage piles.

State Rule Applicability - Individual Facilities

326 IAC 6-1 (Nonattainment Area Limitations)

In order to be able to relocate the portable concrete crushing plant to any nonattainment county designated by 326 IAC 6-1-7, the portable plant facilities shall meet the allowable PM emission limitation pursuant to 326 IAC 6-1-2 (a) of 0.03 grains per standard dry cubic feet per minute. However, pursuant to 326 IAC 6-1-2(g), all operations subject to 326 IAC 6-1-2, where the process is totally enclosed and thus it is practical to measure therefrom shall comply with the PM emission limit. The slag crushing operation is not enclosed and is subject to 326 IAC 6-1-2(g) that requires compliance with 326 IAC 2, 326 IAC 5-1 and 326 IAC 6-4.

326 IAC 6-1-10.1 (Nonattainment area particulate limitations: Lake County PM₁₀ emission requirements)
Although U.S. Steel Gary Works is a listed source in 326 IAC 6-1-10.1(d) none of the facilities associated with the U.S. Aggregates Company operations are specifically cited, therefore this rule does not apply to the U.S. Aggregates' facilities.

326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)
The source will be in violation of 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), if the opacity of fugitive particulate emissions exceeds ten percent (10%). Compliance with this opacity limit shall be achieved by controlling fugitive particulate matter emissions according to the plan submitted on January 28, 2000.

Testing Requirements

This Source is not required to test these emission units at this time because, there is no control device and actual emissions are less than 25 tons per year. However, IDEM may require compliance testing when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the opacity limits pursuant to 326 IAC 5-1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Conclusion

The construction and operation of this portable crushing, screening and conveying plant shall be subject to the conditions of the attached proposed Significant Source Modification No. 089-13821-05210.

Appendix A: Emission Calculations

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Company Name: U.S. Aggregates Inc.
Address City IN Zip: 1 North Broadway, Gary Indiana 46402
CP: 089-11824
Plt ID: 089-05210
Reviewer: Gurinder Saini
Date: 02/22/2001

* * emissions before controls * *

(TSP)

Crushing (secondary)*	230 ton/hr x	0.0315 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	31.73 tons/yr	-42 Ch.11.19.2 based on fire version 6.22 EF for PM-10 of 0.015 lb/ton of raw material
Conveyor Transfer*	230 ton/hr x	0.00294 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	2.96 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)

Total emissions before controls: 34.69 tons/yr

See AP-42 (1/95) Table 11.19.2-2, notes c and d before using these emission factors (PM10 emission factors differ from those listed above).

*PM10 emission factors are calculated by dividing the TSP emission factors by 2.1 (approximately 47.5% of the TSP factors).

* * emissions after controls * *

Crushing (secondary)	31.73 tons/yr x	10% emitted after controls =	3.17 tons/yr
Conveying	2.96 tons/yr x	10% emitted after controls =	0.30 tons/yr

Total emissions after controls: 3.47 tons/yr

* * fugitive vs. nonfugitive * *

Crushing (secondary)	31.73 tons/yr x	10% emitted after controls =	3.17 tons/yr
Conveying:	2.96 tons/yr x	10% emitted after controls =	0.30 tons/yr

Total nonfugitive emissions: 3.47 tons/yr

Appendix A: Emission Calculations

Page 2 of 2 TSD App A

Company Name: U.S. Aggregates Inc.
Address City IN Zip: 1 North Broadway, Gary Indiana 46402
CP: 089-11824
Plt ID: 089-05210
Reviewer: Gurinder Saini
Date: 02/22/2001

* * emissions before controls * *

PM-10

Crushing (secondary)*	230 ton/hr x	0.015 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	15.11 tons/yr	-42 Ch.11.19.2 based on fire version 6.22 EF for PM-10 of 0.015 lb/ton of raw material
Conveyor Transfer*	230 ton/hr x	0.0014 lb/ton	/ 2000 lb/ton x	8760 hr/yr =	1.41 tons/yr	AP-42 Ch.11.19.2 (Fifth edition, 1/95)
Total emissions before controls:					16.52 tons/yr	

See AP-42 (1/95) Table 11.19.2-2, notes c and d before using these emission factors (PM10 emission factors differ from those listed above).

*PM10 emission factors are calculated by dividing the TSP emission factors by 2.1 (approximately 47.5% of the TSP factors).

* * emissions after controls * *

Crushing (secondary)	15.11 tons/yr x	10% emitted after controls =	1.51 tons/yr
Conveying	1.41 tons/yr x	10% emitted after controls =	0.14 tons/yr
Total emissions after controls:			1.65 tons/yr

* * fugitive vs. nonfugitive * *

Crushing (secondary)	15.11 tons/yr x	10% emitted after controls =	1.51 tons/yr
Conveying:	1.41 tons/yr x	10% emitted after controls =	0.14 tons/yr
Total nonfugitive emissions:			1.65 tons/yr